Title (en)

SILICA NANOPARTICLES DOPED WITH MULTIPLE DYES FEATURING HIGHLY EFFICIENT ENERGY TRANSFER AND TUNABLE STOKES-SHIFT

Title (de)

MIT VERSCHIEDENEN FARBSTOFFEN MIT HOCH EFFIZIENTER ENERGIEÜBERTRAGUNG UND ABSTIMMBARER STOKESVERSCHIEBUNG DOTIERTE SILICA-NANOPARTIKEL

Title (fr)

NANOPARTICULES DE SILICE DOPÉES PAR DE MULTIPLES COLORANTS PRÉSENTANT UN TRANSFERT D'ÉNERGIE HAUTEMENT EFFICACE ET UN DÉPLACEMENT DE STOKES ACCORDABLE

Publication

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Application

EP 11776904 A 20111013

Priority

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Abstract (en)

[origin: WO2012049657A1] The present invention relates to silica nanoparticles comprising at least two dyes. Said dyes have a respective relationship of donor-acceptor couple in an energy transfer process and have a molar absorption coefficient = 10,000 M-1 cm-1 for the considered spectral region, a fluorescence quantum yield = 0.01, good overlap integral, according to the Förster theory, between said donor and said acceptor dye; said active compounds may be lipophilic or may present a functionality useful for the introduction of a trialkoxysilane moiety. The dyes provide an efficient energy transfer process. Said nanoparticles are useful as probes in the field of medicine, in particular therapy and diagnostics, more particularly in theranostics, and in the field of analytical chemistry.

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

See references of WO 2012049657A1

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